## REMARKS

The specification has been amended to correct the typographical errors noted at the top of page 2 of the 09/05/2006 Office Action. Claims 1, 2, 17, 26 and 42 have been amended to describe the jet of liquid contacting the bottom surface of the workpiece, or a similar concept, as supported e.g., in Figs. 11 or 12. Claims 2 and 25 have been amended to describe forming the liquid layer on the workpiece via spray nozzles on a sidewall of the chamber, as also shown in Fig. 12. Claim 3 is amended to describe a range of pressures included in original and now cancelled 32. Claims 4 and 42 have been amended to include the jet oriented substantially perpendicular to the workpiece, and claims 25 and 42 have been amended to describe spinning the workpiece in a substantially horizontal orientation. These changes are also supported by Fig. 12, original claim 14, and at 0019.

Turning to the prior art, Torek et al., US Patent No. 6,645,874 B1, does not suggest any use of liquid jet as claimed. Torek et al. also teaches away from fast spinning, Col. 1, line 65 – Col. 2, lines 1-6, on the basis that it poses a significant risk of damage to the workpiece. Accordingly, Torek et al. specifies slow rotation, approximately 100 rpm or less, to provide a uniform boundary layer. Col. 3, lines 27-30 and Col. 9, lines 15-20. This rotation is performed with the wafer in a vertical orientation, as shown in Figs. 3 and 5 of Torek et al. In addition, this is a batch process, with the workpieces held in a cassette (element 85 in Figs. 3 and 5). Col. 6, lines 60-68; Col. 7, lines 16-20; Col. 8, lines 60-64. A pulsing spray is optionally used in Torek et al. to remove chunks of photoresist. Col. 4, lines 48-67.

DeGendt et al., US 2002/0011257 A1, discloses tank processes with a stationary substrate. Spinning and spraying would not appear to be used. As with Torek et al., there is no liquid jet. As with Torek et al., the substrates are vertically oriented.

Sasaki et al., US Patent No. 5,785,068, describes a high pressure pinpoint liquid spin process. The pinpoint liquid is provided only at an inclination angle, not substantially perpendicular to the substrate. The pinpoint liquid is applied to the top surface of the substrate. The Sasaki et al. apparatus cannot process the bottom surface of the substrate. The pinpoint liquid directed at an angle to the substrate is apparently intended to remove particles directly via the pinpoint liquid. No chemical cleaning, such as the claimed use of ozone, is suggested.

Turning now to the combination of Torek et al., DeGendt et al., and Sasaki et al., since none of these references suggest directing a jet of liquid at a bottom surface of the spinning workpiece, this combination cannot render claims 1, 2 or 26 obvious. The difference between the combination of prior art and these claims is more than just directing the jet onto a top surface or a bottom surface. Claims 1 and 26 include forming a layer of liquid on the bottom surface in combination with directing the jet at the bottom surface. Forming the liquid layer on the bottom surface is not disclosed in any of the references. It is also not suggested because with the liquid layer on the bottom surface, gravity works against maintaining the liquid layer in place.

Regarding claims 4 and 42, Sasaki et al. consistently, and apparently necessarily, discusses use of the pinpoint liquid only at an angle. The horizontal velocity component of the pinpoint liquid is apparently used in Sasaki et al. to carry away particles. Sasaki et al. does not disclose any perpendicular pinpoint liquid

orientation. The Sasaki et al. apparatus also does not appear to be able to achieve a perpendicular orientation.

Relative to claim 3 which includes pressures of 500-2000 psi, Sasaki et al. discloses a pressure of at least 30 kg/sq. cm, or 426 psi.

Finally, there is no motivation shown anywhere to combine either of Torek et al. or DeGendt et al. with Sasaki et al. Torek et al. and DeGendt et al. describe only purely chemical cleaning. Neither one discloses any mechanical or jet cleaning elements. They also teach away from combination with a liquid jet, as claimed, because they are tank processes. See Fig. 3 in Torek et al. and Figs. 3 and 8 in DeGendt et al. Torek et al. and DeGendt et al. are both physically and conceptually not consistent with or adaptable for use with a liquid jet. Moreover, based on the content of these references, there would be no reason to combine either one with the other, or with a pinpoint liquid reference such as Sasaki et al.

Similarly, Sasaki et al. is directed to solving the problem of varying the angles of the pinpoint liquid, Col. 1, lines 18-34, and moving the pinpoint liquid in a way to cover the entire surface of the substrate. Col. 4, lines 15-17. This is a problem entirely unrelated to the problems addressed in Torek et al. and DeGendt et al. Sasaki et al. solves the problems described purely by a mechanical arrangement of elements. Consequently, there is nothing linking Sasaki et al. with either Torek et al. or DeGendt et al., and nothing (other than hindsight) to suggest combining Sasaki et al. with Torek et al. and DeGendt et al.

In view of the foregoing, it is submitted that the claims are in condition for allowance. A Notice of Allowance is requested.

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